EPIDEMIOLOGY OF COMMUNITY-ASSOCIATED *CLOSTRIDIUM DIFFICILE* INFECTION (CA-CDI), EMERGING INFECTIONS PROGRAM, 2009–2011

Chitnis, A;[*1] Holzbauer, S;[1,2] Belflower, R;[1] Winston, L;[3] Kast, K;[4] Lyons, C;[5] Farley, M;[6] Perlmutter, R;[7] Dumyati, G;[8] Beldavs, Z;[9] Dunn, J;[10] Gould, LH;[1] McDonald, C;[1] Lessa, F[1]

[1]CDC; [2]MN Department of Health; [3]UCSF; [4]CO Department of Public Health and Environment; [5]Yale University; [6]Emory University and Atlanta VAMC; [7]MD Department of Health and Mental Hygiene; [8]University of Rochester; [9]OR Department of Human Services; [10]TN Department of Health.

Purpose: To describe the epidemiology, ambulatory healthcare exposures, and community-based sources of *C. difficile* among CA-CDI cases from 1/1/2009 to 5/31/2011.

Methods and Results: Prospective, active population-based CDI surveillance. A CA-CDI case was defined as a positive *C. difficile* toxin assay on a stool specimen from a person with diarrhea who had neither a prior positive assay within 8 weeks nor an overnight healthcare facility stay within 12 weeks before stool collection. Data on demographics, ambulatory healthcare exposures, antimicrobials, household members, and food were collected through medical record review and telephone interviews. Ambulatory healthcare exposures included surgery or a procedure, dialysis, care at an emergency/urgent care facility, or a job requiring direct patient-contact 12 weeks before stool collection. Cases with and without prior ambulatory exposures were compared using chi-square tests. Variables with *P*-value <0.20 were eligible for inclusion in a logistic regression model.

Of 989 cases, 64% received antimicrobials and 41% had ambulatory exposures. Mean age was 48 years, 67% were female, and 86% were white. Cases without ambulatory exposures were more likely (P <0.05) to have no reported medical conditions, an infant aged <1 year in the household, and a household member with CDI, and less likely to have received antimicrobials than cases with ambulatory exposures. Adjusting for medical conditions and household member

with CDI, an infant <1 year in the household was associated with CA-CDI without prior ambulatory exposure (aOR=2.06; *P*= 0.05).

Conclusion: Prevention of CA-CDI should focus on reducing antimicrobial use and possible *C. difficile* transmission in ambulatory settings. New measures to prevent *C. difficile* transmission in the home may be warranted.

Character count: 2,396 (limit: 2,400 with spaces)